

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/763,019

DATE: 03/02/2001

TIME: 12:58:15

Input Set : A:\PPD50355 US SEQ LIST.txt
Output Set: N:\CRF3\03022001\I763019.raw

3 <110> APPLICANT: Evans, Ian
4 Ray, John
6 <120> TITLE OF INVENTION: Polynucleotide Sequences
8 <130> FILE REFERENCE: PPD50355/UST
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/763,019
C--> 11 <141> CURRENT FILING DATE: 2001-02-15
13 <150> PRIOR APPLICATION NUMBER: GB 9818003.7
14 <151> PRIOR FILING DATE: 1998-08-18
16 <150> PRIOR APPLICATION NUMBER: PCT/GB99/02720
17 <151> PRIOR FILING DATE: 1999-08-17
19 <160> NUMBER OF SEQ ID NOS: 37
21 <170> SOFTWARE: PatentIn Ver. 2.1
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 399
25 <212> TYPE: DNA
26 <213> ORGANISM: Dahlia merckii
28 <220> FEATURE:
29 <221> NAME/KEY: CDS
30 <222> LOCATION: (53)..(388)
32 <400> SEQUENCE: 1
33 gtccccggg tcacgaagtt cggcacatct tagcgttatg cataagtcaa aa atg gcc 58
34 Met Ala
35 1
37 aaa aat tca gtt gct ttc ttt gca ttg tgc ctg ctt ctt ttc att ctt 106
38 Lys Asn Ser Val Ala Phe Phe Ala Leu Cys Leu Leu Phe Ile Leu
39. 5 10 15
41 gct atc tca gaa atc aga tcg gtg aag ggg gaa tta tgt gag aag gca 154
42 Ala Ile Ser Glu Ile Arg Ser Val Lys Gly Glu Leu Cys Glu Lys Ala
43 20 25 30
45 agc aag aca tgg tct gga aat tgt ggc aat aca aga cac tgt gat gac 202
46 Ser Lys Thr Trp Ser Gly Asn Cys Gly Asn Thr Arg His Cys Asp Asp
47 35 40 45 50
49 cag tgc aag tct tgg gag ggt gca gcc cat gga gct tgt cac gtg cgc 250
50 Gln Cys Lys Ser Trp Glu Gly Ala Ala His Gly Ala Cys His Val Arg
51 55 60 65
53 ggt ggg aaa cac atg tgc ttc tgc tac aac tgc ttt ccc aaa gcc cag 298
54 Gly Gly Lys His Met Cys Phe Cys Tyr Phe Asn Cys Pro Lys Ala Gln
55 70 75 80
57 aag ttg gct gag gat aaa ctc aga gca gca gag cta gca aag gag aag 346
58 Lys Leu Ala Glu Asp Lys Leu Arg Ala Ala Glu Leu Ala Lys Glu Lys
59 85 90 95
61 aat aat att gga gct gaa aag gtg cct tca gcc aca cct tga 388
62 Asn Asn Ile Gly Ala Glu Lys Val Pro Ser Ala Thr Pro
63 100 105 110
65 gtactaacaa a
70 <210> SEQ ID NO: 2
71 <211> LENGTH: 523

P.S.
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72 <212> TYPE: DNA
73 <213> ORGANISM: Dahlia merckii
75 <220> FEATURE:
76 <221> NAME/KEY: CDS
77 <222> LOCATION: (11)..(337)
79 <400> SEQUENCE: 2
80 ggcacgagta atg gcc aaa aat tca gtt gct ttc tta gca ttt ctt ctg 49
81 Met Ala Lys Asn Ser Val Ala Phe Leu Ala Phe Leu Leu
82 1 5 10
84 ctt ctt ttc gtt ctt gct atc tca gaa atc gga tcg gtg aag ggg gaa 97
85 Leu Leu Phe Val Leu Ala Ile Ser Glu Ile Gly Ser Val Lys Gly Glu
86 15 20 25
88 tta tgt gag aag gca agc aag aca tgg tct gga aat tgt ggc aat aca 145
89 Leu Cys Glu Lys Ala Ser Lys Thr Trp Ser Gly Asn Cys Gly Asn Thr
90 30 35 40 45
92 aga cac tgt gat gac cag tgc aag tct tgg gag ggc gca gcc cat gga 193
93 Arg His Cys Asp Asp Gln Cys Lys Ser Trp Glu Gly Ala Ala His Gly
94 50 55 60
96 gct tgt cac gtc cgc ggt ggg aaa cac atg tgc ttt tgc tac ttc aac 241
97 Ala Cys His Val Arg Gly Lys His Met Cys Phe Cys Tyr Phe Asn
98 65 70 75
100 tgt tcc aaa gcc cag aag ctg gct cag gat aaa ctc aaa gcc gac aag 289
101 Cys Ser Lys Ala Gln Lys Leu Ala Gln Asp Lys Leu Lys Ala Asp Lys
102 80 85 90
104 ctc gcc aag gag aag agt gaa gca aag gtc cca gct aca cct tga 337
105 Leu Ala Lys Glu Lys Ser Glu Ala Glu Lys Val Pro Ala Thr Pro
106 95 100 105
108 gtactaacaa gtgttgtatg attatgaata aagagaaaaat gctttctagt taccatattt 397
110 agcattctct aatgtgtaat gtttggcttcttggacta attgcttaac tatgattcca 457
112 gctataatg tttaagtat ataataataag ttatcttatt ttgaaggctg taaaaaaaaa 517
114 aaaaaa 523
119 <210> SEQ ID NO: 3
120 <211> LENGTH: 385
121 <212> TYPE: DNA
122 <213> ORGANISM: Dahlia merckii
124 <220> FEATURE:
125 <221> NAME/KEY: CDS
126 <222> LOCATION: (24)..(320)
128 <400> SEQUENCE: 3
129 cggcacgagg cacaatctca aaa atg gcc aaa aat tcg gtt gct ttc ttt gca 53
130 Met Ala Lys Asn Ser Val Ala Phe Phe Ala
131 1 5 10
133 ttt gtc ctg ctt ttc gtt ctt gct atc tca gaa att gga tcg gtg 101
134 Phe Val Leu Leu Phe Val Leu Ala Ile Ser Glu Ile Gly Ser Val
135 15 20 25
137 aag gga gaa tta tgt gag aag gca agc aag aca tgg tct gga aat tgt 149
138 Lys Gly Glu Leu Cys Glu Lys Ala Ser Lys Thr Trp Ser Gly Asn Cys
139 30 35 40
141 ggc atc aca tca cac tgt gac aac cag tgc cgg tcg tgg gag ggt gca 197

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142 Gly Ile Thr Ser His Cys Asp Asn Gln Cys Arg Ser Trp Glu Gly Ala
 143 45 50 55
 145 atc cat gga gct tgt cac gtg cgc ggt ggg aaa cac atg tgc ttc tgc 245
 146 Ile His Gly Ala Cys His Val Arg Gly Gly Lys His Met Cys Phe Cys
 147 60 65 70
 149 tac ttc aac tgt tcc aaa gcc gat gag ctc gcg aag gag aag att gaa 293
 150 Tyr Phe Asn Cys Ser Lys Ala Asp Glu Leu Ala Lys Glu Lys Ile Glu
 151 75 80 85 90
 153 gcc gaa aag atg cca gcc aca cct tga gtactaacaa atgctatatg 340
 154 Ala Glu Lys Met Pro Ala Thr Pro
 155 95
 157 attataaata aagagaaaat gctttctaaa aaaaaaaaaa aaaaaa 385
 161 <210> SEQ ID NO: 4
 162 <211> LENGTH: 577
 163 <212> TYPE: DNA
 164 <213> ORGANISM: Dahlia merckii
 166 <220> FEATURE:
 167 <221> NAME/KEY: CDS
 168 <222> LOCATION: (20)..(346)
 170 <400> SEQUENCE: 4
 171 ggcacgagcc tattaaaaa atg gtg aat cga tcg gtt gct ttc tcc gtg ttc 52
 172 Met Val Asn Arg Ser Val Ala Phe Ser Val Phe
 173 1 5 10
 175 gtt ctg atc ctt ttc gtg ctc gcc atc tca gat atc aca agt gtg aga 100
 176 Val Leu Ile Leu Phe Val Leu Ala Ile Ser Asp Ile Thr Ser Val Arg
 177 15 20 25
 179 gga gaa gta tgc gag aaa gct agc aag aca tgg tca gga aac tgg ggc 148
 180 Gly Glu Val Cys Glu Lys Ala Ser Lys Thr Trp Ser Gly Asn Cys Gly
 181 30 35 40
 183 aac acg gga cac tgt gac aac caa tgt aaa tac tgg gag ggg ggc gcc 196
 184 Asn Thr Gly His Cys Asp Asn Gln Cys Lys Tyr Trp Glu Gly Ala Ala
 185 45 50 55
 187 cat ggg gcg tgc cac gtg cgt gga ggg aaa cac atg tgt ttc tgc tac 244
 188 His Gly Ala Cys His Val Arg Gly Gly Lys His Met Cys Phe Cys Tyr
 189 60 65 70 75
 191 ttc aag tgt ccc aaa gcc gaa aag ctt gct caa gac aaa gtt aat gcc 292
 192 Phe Lys Cys Pro Lys Ala Glu Lys Leu Ala Gln Asp Lys Val Asn Ala
 193 80 85 90
 195 caa gag ctt gac cgt gat gcc aag aaa gtg att ccg aac gtt gaa cat 340
 196 Gln Glu Leu Asp Arg Asp Ala Lys Lys Val Ile Pro Asn Val Glu His
 197 95 100 105
 199 ccg tga aagggtcggt ttcttaat agaaagtctt agattacgaa tgcgataaac 396
 200 Pro
 202 tatagaaaat gtttgctaaa tgtcacatta taattagaac tttatgattt ttgtcaatag 456
 204 ggcattttct ttttagtgtat atgtgtataa aggtgtatgtct tttatgtttt tcgtgcgtaa 516
 206 gagtttcga ctatgtgtaa taaagaaagg gtctttttt tttaaaaaaaa aaaaaaaaaa 576
 208 a
 213 <210> SEQ ID NO: 5
 214 <211> LENGTH: 446

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215 <212> TYPE: DNA
216 <213> ORGANISM: Dahlia merckii
218 <400> SEQUENCE: 5
219 atggtaatc ggtcggttgc gttctcccgcg ttcgttctga tcctttcgt gctcgccatc 60
220 tcagggttatac aaatcttttag ttcatttattt gaatatgata gtatttataat tcttttatgg 120
221 ttttatgtgt tctgacaagt tgcaaataatt gagtagatat cgcacatccgtt agtggagaac 180
222 tatgcgagaa agctagcaag acatggtcgg gaaactgtgg caatacggga cattgtgaca 240
223 accaatgtaa atcatgggag ggtcggttgc atggagcgtg tcatgtgcgt aacgggaaac 300
224 acatgtgttt ctgttacttc aattgtaaaa aagccgaaaa gcttgctcaa gacaaactta 360
225 aagccgaaca actcgctcaa gacaaactta atgcccaaaa gcttgaccgt gatgccaaga 420
226 aagtggttcc aaacgttgaa catccg 446
229 <210> SEQ ID NO: 6
230 <211> LENGTH: 150
231 <212> TYPE: DNA
232 <213> ORGANISM: Dahlia merckii
234 <400> SEQUENCE: 6
235 gagctttgcg agaaggcttc taagacttgg tctggaaact gcggaaacac tggacattgc 60
236 gataaccaat gcaagtcttgg gggaggact gctcatggag cttgccatgt tagaaacgg 120
237 aagcatatgt gcttctgtca cttcaactgc 150
240 <210> SEQ ID NO: 7
241 <211> LENGTH: 60
242 <212> TYPE: DNA
243 <213> ORGANISM: Dahlia merckii
245 <400> SEQUENCE: 7
246 gaggtttgcg agaaggcttc taagacttgg tctggaaact gcggaaacac tggacattgc 60
248 <210> SEQ ID NO: 8
249 <211> LENGTH: 111
250 <212> TYPE: PRT
251 <213> ORGANISM: Dahlia merckii
253 <400> SEQUENCE: 8
254 Met Ala Lys Asn Ser Val Ala Phe Phe Ala Leu Cys Leu Leu Leu Phe
255 1 5 10 15
257 Ile Leu Ala Ile Ser Glu Ile Arg Ser Val Lys Gly Glu Leu Cys Glu
258 20 25 30
260 Lys Ala Ser Lys Thr Trp Ser Gly Asn Cys Gly Asn Thr Arg His Cys
261 35 40 45
263 Asp Asp Gln Cys Lys Ser Trp Glu Gly Ala Ala His Gly Ala Cys His
264 50 55 60
266 Val Arg Gly Gly Lys His Met Cys Phe Cys Tyr Phe Asn Cys Pro Lys
267 65 70 75 80
269 Ala Gln Lys Leu Ala Glu Asp Lys Leu Arg Ala Ala Glu Leu Ala Lys
270 85 90 95
272 Glu Lys Asn Asn Ile Gly Ala Glu Lys Val Pro Ser Ala Thr Pro
273 100 105 110
276 <210> SEQ ID NO: 9
277 <211> LENGTH: 108
278 <212> TYPE: PRT
279 <213> ORGANISM: Dahlia merckii
281 <400> SEQUENCE: 9

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282 Met Ala Lys Asn Ser Val Ala Phe Leu Ala Phe Leu Leu Leu Phe
283 1 5 10 15
285 Val Leu Ala Ile Ser Glu Ile Gly Ser Val Lys Gly Glu Leu Cys Glu
286 20 25 30
288 Lys Ala Ser Lys Thr Trp Ser Gly Asn Cys Gly Asn Thr Arg His Cys
289 35 40 45
291 Asp Asp Gln Cys Lys Ser Trp Glu Gly Ala Ala His Gly Ala Cys His
292 50 55 60
294 Val Arg Gly Gly Lys His Met Cys Phe Cys Tyr Phe Asn Cys Ser Lys
295 65 70 75 80
297 Ala Gln Lys Leu Ala Gln Asp Lys Leu Lys Ala Asp Lys Leu Ala Lys
298 85 90 95
300 Glu Lys Ser Glu Ala Glu Lys Val Pro Ala Thr Pro
301 100 105
304 <210> SEQ ID NO: 10
305 <211> LENGTH: 98
306 <212> TYPE: PRT
307 <213> ORGANISM: Dahlia merckii
309 <400> SEQUENCE: 10
310 Met Ala Lys Asn Ser Val Ala Phe Phe Ala Phe Val Leu Leu Leu Phe
311 1 5 10 15
313 Val Leu Ala Ile Ser Glu Ile Gly Ser Val Lys Gly Glu Leu Cys Glu
314 20 25 30
316 Lys Ala Ser Lys Thr Trp Ser Gly Asn Cys Gly Ile Thr Ser His Cys
317 35 40 45
319 Asp Asn Gln Cys Arg Ser Trp Glu Gly Ala Ile His Gly Ala Cys His
320 50 55 60
322 Val Arg Gly Gly Lys His Met Cys Phe Cys Tyr Phe Asn Cys Ser Lys
323 65 70 75 80
325 Ala Asp Glu Leu Ala Lys Glu Lys Ile Glu Ala Glu Lys Met Pro Ala
326 85 90 95
328 Thr Pro
331 <210> SEQ ID NO: 11
332 <211> LENGTH: 108
333 <212> TYPE: PRT
334 <213> ORGANISM: Dahlia merckii
336 <400> SEQUENCE: 11
337 Met Val Asn Arg Ser Val Ala Phe Ser Val Phe Val Leu Ile Leu Phe
338 1 5 10 15
340 Val Leu Ala Ile Ser Asp Ile Thr Ser Val Arg Gly Glu Val Cys Glu
341 20 25 30
343 Lys Ala Ser Lys Thr Trp Ser Gly Asn Cys Gly Asn Thr Gly His Cys
344 35 40 45
346 Asp Asn Gln Cys Lys Tyr Trp Glu Gly Ala Ala His Gly Ala Cys His
347 50 55 60
349 Val Arg Gly Gly Lys His Met Cys Phe Cys Tyr Phe Lys Cys Pro Lys
350 65 70 75 80
352 Ala Glu Lys Leu Ala Gln Asp Lys Val Asn Ala Gln Glu Leu Asp Arg
353 85 90 95

FYI

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

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Input Set : A:\PPD50355 US SEQ LIST.txt
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L:10 M:270 C: Current Application Number differs, Replaced Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:461 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:523 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:579 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22